

REMARKS

Claim rejections under 35 USC 101

Claims 1-20 have been rejected under 35 USC 101 as being directed to non-statutory subject matter.

As to independent claims 1 and 8, these claims are directed to a system having a plurality of objects, but which is not recited in conjunction with a physical structure. To remedy this, Applicant has amended these systems to include hardware, “including one or more of memory, processors, and storage devices,” where the objects in question are “implemented via the hardware.” (See, e.g., patent application as filed, p. 19, ll. 13-21, in which the object-oriented software environment is described as being implemented within a hardware environment.) As such, Applicant respectfully submits that claims 1 and 8 now recite objects in conjunction with a physical structure (namely, the hardware), and requests the withdrawal of the rejection as to these claims and their dependent claims.

As to independent claim 11, this claim is directed to code or instructions that are not interrelated with a tangible media or a computer. To remedy this, Applicant has amended this claim so that the object in question is implemented via hardware “including one or more of memory, processors, and storage devices,” similar to the manner in which claims 1 and 8 have been amended. As such, claim 11’s code or instructions are now interrelated to a computer in that they are now interrelated to hardware (i.e., the first element attempts to access an interface that is support by an object implemented in hardware, and therefore interrelates to this hardware.) Therefore, Applicant respectfully requests the withdrawal of the rejection as to this claim and its dependent claims.

As to independent claim 16, this claim is directed to a computer-readable medium, which is described in the specification as potentially being an intangible modulated carrier signal, as opposed to a tangible recordable data storage medium. To remedy this, Applicant has amended

claim 16 so that the computer-readable medium is limited to being a tangible computer-readable medium, and is further limited to being a recordable data storage medium. As such, claim 16 is no longer directed to an intangible computer-readable medium like a modulated carrier signal. Therefore, Applicant respectfully requests the withdrawal of the rejection as to this claim and its dependent claims.

If the Examiner believes that one or more of the above amendments do not render their corresponding claims statutory under 35 USC 101, the Examiner is respectfully requested to suggest limitations that if added to such claims would render them statutory. Applicant respectfully submits that satisfying 35 USC 101 is largely a semantic exercise, and that different examiners typically like to see different types of amendments made to claims for the claims to satisfy 35 USC 101. Applicant is amenable in this respect to the Examiner's suggestions as to why added language would render these claims statutory. However, Applicant does believe that the amendments made to the claims render them statutory under 35 USC 101, as to both the spirit and the letter of 35 USC 101.

Important introductory note regarding prior art rejections of claims 1-20

Applicant discusses the prior art rejections as to particular groups of claims below. In essence, however, there are basically two arguments: a first argument as to why claims 1-2 and 5-7 and claims 11-15 are patentable, and a second argument as to why claims 3 and 4, claims 8-10, and claims 16-20 are patentable. Applicant respectfully requests that the Examiner look at each of these arguments separately, as they are quite different from one another. Applicant is particularly certain that claims 3 and 4, 8-10, and 16-20 as argued below recite patentable subject matter in light of the prior art cited by the Examiner, in that there is really no colorable argument that can be made that the currently cited prior art renders the inventions of these claims unpatentable in any way. In this respect, the Examiner is respectfully requested,

therefore, to spend extra time looking at the arguments relating to claims 3 and 4, 8-10, and 16-20, to understand what Applicant is attempting to convey in these arguments.

Prior art rejections as to claims 1-2 and 5-7

Claim 1 is an independent claim, from which claims 2 and 5-7 ultimately depend. Claims 1-2 and 5-7 have been rejected under 35 USC 103(a) as being unpatentable over Kishimoto (7,150,041) in view of Stoneking (5,982,390). Applicant submits that claim 1 at least as amended is patentable over Kishimoto in view of Stoneking, such that claims 2 and 5-7 are patentable over Kishimoto in view of Stoneking at least because they depend from a patentable base independent claim, claim 1.

Claim 1 has been amended in two ways. First, the inter-related first objects are greater than two in number; that is, there are at least three of these first objects. (See, e.g., FIG. 2 of the patent application as filed.) Second, the previously recited clause “each first object-oriented interface including a password argument to limit access thereto to the inter-related first objects sharing the predetermined password” has been modified as follows. In particular, this clause is now “such that the first object-oriented interfaces are queryable by the second objects but the methods defined by the first object-oriented interfaces are uninvokable by the second objects due to the second objects not sharing the predetermined password.” Applicant submits that this amendment was at least substantially implicit in the claim language prior to being made explicit in this response. For instance, insofar as the first object-oriented interfaces are publicly queryable, then they have to be queryable by the second objects. Likewise, insofar as each such interface includes a password argument to limit access to the inter-related first objects sharing the predetermined password, where the second objects do not share this password, then the methods defining these interfaces cannot be invoked by the second objects. (See also, p. 14, l. 19, through p. 15, l. 8, of the patent application as filed.)

Applicant submits that Kishimoto in view of Stoneking does not teach, disclose, or suggest claim 1 as amended. For instance, the base reference Kishimoto teaches that an object (presumably the program 102) uses the “RMI interface method or function.” (Col. 3, ll. 51-55.) “In this case, the RMI address [i]s a key for accessing the RMI interface 108 [and] is acquired from the RMI management object 105.” (Col. 3, ll. 55-57.) “However, this RMI address cannot be acquired unless the management program 105 is subjected to authentication by the manager information file 104.” (Col. 3, ll. 57-60.) Thus, in Kishimoto in view of Stoneking, the program 102 cannot access/query the RMI interface unless it has acquired the RMI address, and does not acquire the RMI address until it has been authentication, such as via a password. Once the program 102 is able to access/query the RMI interface, it is able to use/invoke the method defined by the RMI interface.

Compare, however, what the claimed invention as amended is limited to. A second object is able to query the first object-oriented interfaces, but cannot invoke the methods defined by the first object-oriented interfaces because it does not have the password. Thus, in Kishimoto in view of Stoneking, the second object/program 102 is not even able to query the first object-oriented interfaces/RMI interfaces unless it has the password, whereas in claim 1, the second object is still able to query the first object-oriented interfaces even though it does not have the password. That is, in the claimed invention, security via the password comes into play after publicly exposing the interface and before the method is invoked. By comparison, in Kishimoto in view of Stoneking, security via the password comes into play before even exposing the interface; the second object/program 102 cannot even query the RMI interface unless it has been authenticated beforehand, because it cannot get the RMI address that is needed to query the RMI interface. That is, the RMI interface cannot be said to be publicly queryable if you need a password in order to query it in the first place. For this reason, claim 1 as amended is not *prima facie* unpatentable over Kishimoto in view of Stoneking.

Applicant notes that modifying Kishimoto per the teachings of Stoneking does not change the analysis presented above. For example, Stoneking states that there is “a secret password word shared *only* by the personality object 20 and controller object 12 for the current interaction session.” (Col. 11, ll. 39-40.) By comparison, in the claimed invention, the inter-related first objects are “greater than two” in number. Therefore, modifying Kishimoto per the teachings of Stoneking does not remedy the shortcomings of Kishimoto vis-à-vis the claimed invention, because its password sharing is inherently different than that of the invention. To wit, in the claimed invention, you share passwords among more than two objects, whereas in Kishimoto in view of Stoneking, you share passwords only between two objects, and then only for a current session. For this reason a swell, claim 1 as amended is not *prima facie* unpatentable over Kishimoto in view of Stoneking.

Prior art rejections as to claim 3

Claim 3 is a dependent claim, ultimately depending from claim 1, and has been rejected under 35 USC 103(a) as being unpatentable over Kishimoto in view of Stoneking. Claim 3 is patentable at least because it ultimately depends from a patentable base independent claim. However, Applicant submits that claim 3 is independently allowable over Kishimoto in view of Stoneking, regardless of the patentability of its base independent claim.

Claim 3 limits the second object-oriented interfaces, which do not have password arguments as compared to the first-object oriented interfaces that do, as being “required by a predetermined specification.” To make this clearer, applicant has amended claim 3 so that the second object-oriented interfaces are required by a predetermined specification “so that the inter-related first objects are objects that satisfy a standard governed by the predetermined specification.” For example, on page 3, lines 13-15 of the specification of the patent application as filed, these second object-oriented interfaces are required by the predetermined specification

for the Common Information Model (CIM) so that the inter-related first objects are objects that standard the CIM standard governed by this specification. (See also, p. 2, ll. 2-4.)

Neither Kishimoto nor Stoneking disclose this subject matter of claim 3, such that claim 3 cannot be considered to be unpatentable over Kishimoto in view of Stoneking. For instance, the Examiner has stated that column 2, lines 20-24 and column 4, lines 4-16 of Kishimoto, as well as column 11, lines 58-62 and column 14, lines 2-9 of Stoneking disclose the subject matter of claim 3. The disclosure in Kishimoto, however, only talks about *using* remote method invocation (RMI) protocol techniques, and not that particular interfaces are *required* by such an RMI protocol specification, in particular so that the inter-related first objects satisfy any type of standard governed by RMI protocol techniques. Furthermore, it does not even appear that “RMI protocol techniques” are any type of specification that govern any type of standard, such that it cannot be said that the interfaces exposed by Kishimoto in view of Stoneking would satisfy any type of standard in this respect.

In addition, the disclosure in Stoneking just says that one way in which authentication can be performed is to use one-way hash functions described in ISO/IEC 9797. Note, however, that the interfaces required by the predetermined specification in claim 3 are those that specifically *lack* password arguments to limit access thereto, and thus are antithetical to the disclosure in Stoneking in which authentication can be performed in a certain way. Furthermore, that authentication is performed in a certain way does not mean that *object-oriented interfaces* are required by this certain way. That is, Applicant is confident that if ISO/IEC 9797 were to be reviewed in detail, the Examiner could not locate ISO/IEC 9797 as requiring any type of object-oriented interface. Applicant believes that the confusion here stems from the fact that ISO/IEC 9797 discusses a way in which an authentication *method* can be implemented, not the way in which an object-oriented interface that may permit access to this method is exposed. In any case, insofar as the interfaces of claim 3 specifically lack password arguments and thus are irrelevant to

authentication means that the interfaces exposed by Kishimoto in view of Stoneking per a standard directed to authentication cannot render claim 3 unpatentable.

Therefore, because neither Kishimoto nor Stoneking alone or in combination teach, disclose, or suggest the subject matter of claim 3, Kishimoto in view of Stoneking does not render the subject matter of claim 3 unpatentable.

Prior art rejections as to claim 4

Claim 4 is a dependent claim, ultimately depending from claim 1, and has been rejected under 35 USC 103(a) as being unpatentable over Kishimoto in view of Stoneking. Claim 3 is patentable at least because it ultimately depends from a patentable base independent claim. However, Applicant submits that claim 4 is independently allowable over Kishimoto in view of Stoneking, regardless of the patentability of its base independent claim.

Claim 4 is limited to each second-object oriented interface corresponding to one of the first object-oriented interfaces, and being a non-implemented and password-free version of one of the first object-oriented interfaces. Applicant has made this clearer by amending claim 4 to recite that each second object-oriented interface is “identical” to one of the first object-oriented interfaces “except” that the second object-oriented interface is non-implemented and password-free. (See, e.g., p. 15, ll. 2-8, of the patent application as filed.)

Applicant notes the novel advantages of claim 4, especially in conjunction with claims 1 and 3. Say you want to implement objects that satisfy the CIM standard noted above. Unfortunately, the CIM standard requires the interfaces of objects to be publicly accessible and callable (i.e., whatever methods defined by the interfaces have to be invocable by all objects). (See, e.g., p. 2, ll. 5-12, of the patent application as filed.) This is problematic if you want some

of these interfaces to be secure, and only callable by desired objects (i.e., only these desired objects can invoke the methods defined by the interfaces). (See, e.g., p. 2, ll. 13-20.) Therefore, what the invention of claim 4 does is say, OK, I have to expose these interfaces publicly, so I will. Furthermore, I have to let all objects publicly call these interfaces (i.e., invoke the methods defined by these interfaces), so I will do that, too, but will simply make the methods being “not implemented.” Thus, I have met the letter of the CIM standard: these second interfaces are publicly queryable, and anyone can invoke the methods defined by these interfaces – it just so happens that the methods are not implemented. Then what I do is have first interfaces that are identical to these second interfaces, but they add security in the form of passwords, so that only desired objects can call them/invoke their methods.

Therefore, the crux of the invention of claim 4 is that you get to satisfy the letter of a given standard, via the second interfaces, even though the second interfaces are for all intents and purposes irrelevant (since they do not actually have any implemented methods) – and that you get to do what you really want to do (have only certain objects be able to invoke the methods) by having otherwise identical first interfaces that actually do have implemented methods, but with password security. That is, you get the best of both worlds in the invention of claim 4. You satisfy a standard, but also get to add security. Applicant submits that understanding this paragraph and the previous paragraph are paramount to understanding why claim 4 recites patentable subject matter; should the Examiner not understand everything said in these two paragraphs, the Examiner is strongly and respectfully encourage to contact Applicant's representative, Mike Dryja, at the phone number listed below, who hopefully will be able to better convey “what's going on” with claim 4 over the phone.

In any case, Applicant respectfully submits that Kishimoto in view of Stoneking does not teach, disclose, or suggest the claim limitations of claim 4. The Examiner has relied upon column 2, lines 20-24 and column 4, lines 14-16 of Kishimoto, and column 10, lines 49-56 and column 14, lines 2-9 of Stoneking as teaching, disclose, or suggesting claim 4's subject matter. Applicant

has reviewed all these excerpts of Kishimoto and Stoneking in detail, however, and cannot find any reference to second object-oriented interfaces that correspond to first object-oriented interfaces, where each second interface is a non-implemented and password-free version of one of the first interfaces, and such that each second interface is identical to one of the first interfaces except that it is non-implemented and password-free. Applicant respectfully requests that the Examiner provide some explanation as to how these excerpts actually teach, disclose, or suggest the limitations of claim 4, because Applicant just does not find anything in these excerpts that corresponds to the claimed invention. It is noted in this respect that the Examiner is required by the Supreme Court to provide “some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness” (KSR Int’l Co. v. Teleflex, Inc., 550 US _____ (2007), at 14.), but has not as to the limitations of claim 4.

Prior art rejections as to claims 8-10

Claim 8 is an independent claim, from which claims 9 and 10 ultimately depend. Claims 8-10 have been rejected under 35 USC 103(a) as being unpatentable over Kishimoto in view of Stoneking. Claim 8 is limited in a similar manner to which claims 3 and 4 are limited. Therefore, claim 8 is patentable over Kishimoto in view of Stoneking for at least the same reasons that claims 3 and 4 are. Claims 9 and 10 are thus patentable because they depend from a patentable base independent claim, claim 8.

Prior art rejections as to claims 11-15

Claim 11 is an independent claim, from which claims 12-15 ultimately depend. Claims 11-15 have been rejected under 35 USC 103(a) as being unpatentable over Kishimoto in view of Stoneking. Claim 11 has been amended to include the limitations of claim 12 as well as the limitations that have also been added to claim 1, and claim 12 has been cancelled. As such, claim 11 is limited in a similar manner to which claim 1 is limited. Therefore, claim 11 is patentable

over Kishimoto in view of Stoneking for at least the same reasons that claim 1 is. Claims 13-15 are thus patentable because they depend from a patentable base independent claim.

Prior art rejections as to claims 16-20

Claim 16 is an independent claim, from which claims 17-20 ultimately depend. Claims 16 and 18-20 have been rejected under 35 USC 102(e) as being anticipated by Kishimoto. Claim 17 has been rejected under 35 USC 103(a) as being unpatentable over Kishimoto in view of Stoneking. Claim 16 has been amended to include the limitations of claims 17 and 19-20 as well as the limitations that have also been added to claims 3 and 4, and claims 17 and 19-20 have been cancelled. Therefore, claim 16 is patentable over Kishimoto and over Kishimoto in view of Stoneking for at least the same reasons that claims 3 and 4 are. Claim 18 is thus patentable at least because it depends from a patentable base independent claim, claim 16.

Conclusion

Applicants have made a diligent effort to place the pending claims in condition for allowance, and request that they so be allowed. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Mike Dryja, Applicants' Attorney, at 425-427-5094, so that such issues may be resolved as expeditiously as possible. For these reasons, and in view of the above amendments, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully Submitted,



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Date

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Page 18

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